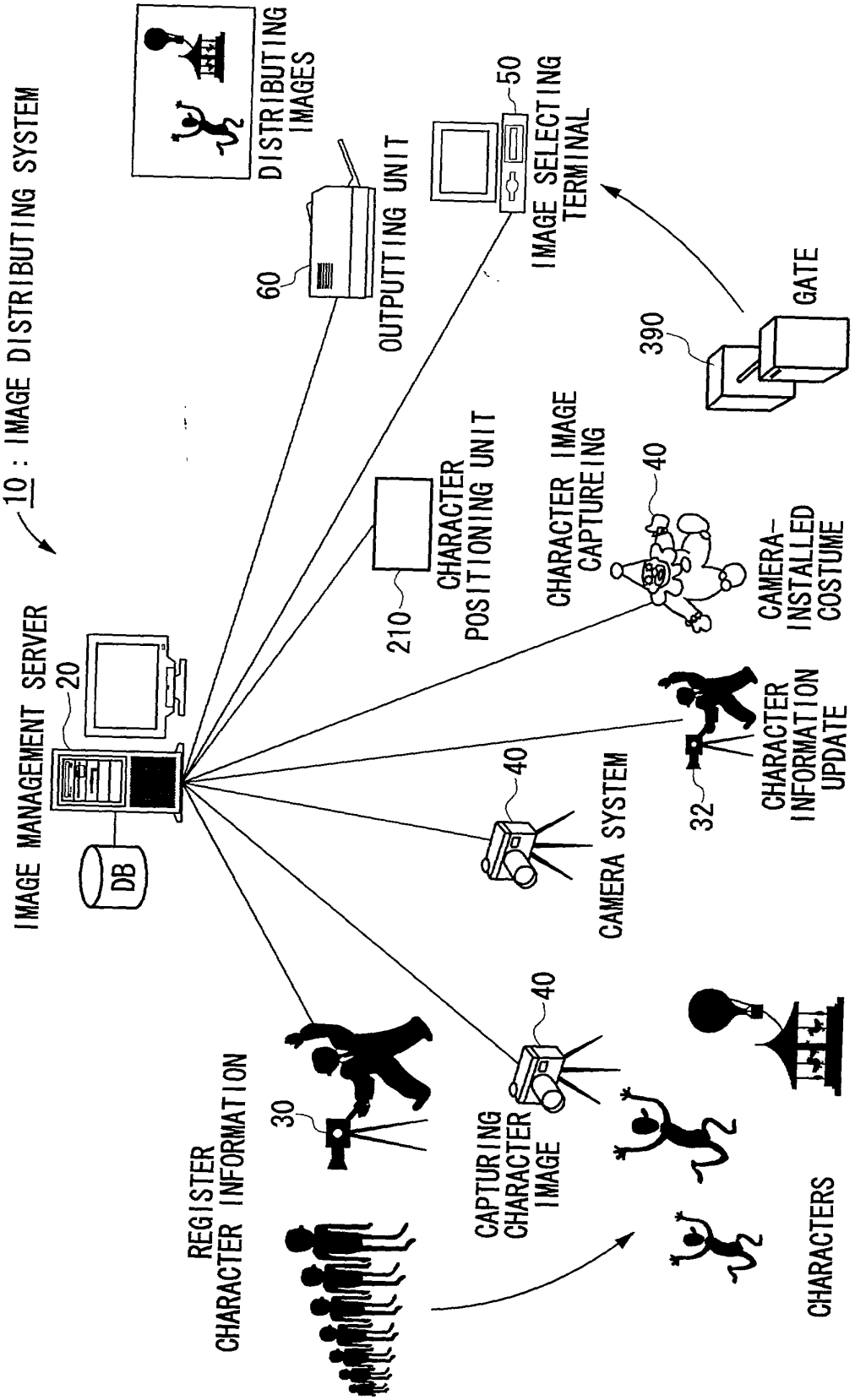

10 : IMAGE DISTRIBUTING SYSTEM
IMAGE MANAGEMENT SERVER
20
DB
DISTRIBUTING IMAGES
60
OUTPUTTING UNIT
50
IMAGE SELECTING TERMINAL
210
CHARACTER POSITIONING UNIT
CHARACTER IMAGE CAPTUREING
40
CAMERA-INSTALLED COSTUME
390
GATE
40
CAMERA SYSTEM
32
CHARACTER INFORMATION UPDATE
REGISTER CHARACTER INFORMATION
30
CAPTURING CHARACTER IMAGE
40
CHARACTERS

FIG. 1

TOKUGAN*2001268860

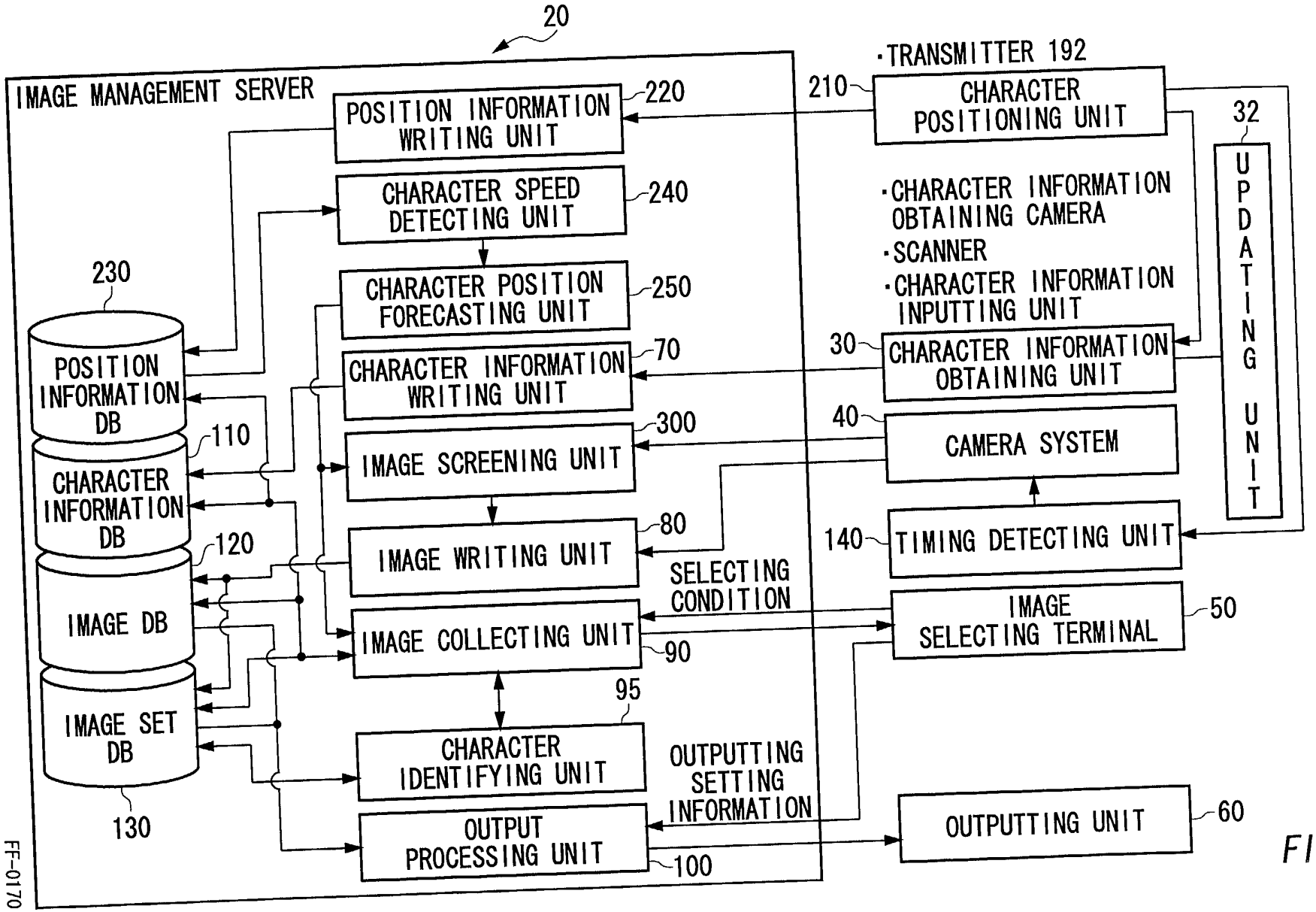


FIG. 2

2/26

Q63248
KAKU
IMAGE COLLECTING SYSTEM AND METHOD
THEREOF
Filed: July 3, 2001
Darryl Mexic 202-293-7060
2 of 26

CHARACTER DB

110

CHARACTER ID	FRIEND ID	CHARACTER INFORMATION		ENTRY TIME	POSITION INFORMATION	RESTRICTION FOR OTHERS NOT TO OBTAIN ONE'S IMAGE
		DATA AT ENTRY	UPDATE DATA			
1	4, 5	FACE PARAMETER(1)	NO	9:00	9:10=POINT A	YES
2	3	FACE PARAMETER(2)	UPDATED FACE PARAMETER(2)	9:15	9:30=POINT B, 10:00=POINT C, ...	NO
3	2	FACE PARAMETER(3)	NO	9:20	9:30=POINT B, 10:00=POINT C, ...	NO

FIG. 3

IMAGE DB 120

IMAGE ID	IMAGE CAPTURING PROPERTY			IDENTIFIED CHARACTER ID				
	CAMERA ID	POSITION INFORMATION						
		PLACE	TIME					
1	5	POINT A	10:00	1				
2	6	POINT A	10:01	2	3			
3	1	POINT B	10:03	8	13			

FIG. 4

IMAGE SET DB 130

SET IMAGE ID		IMAGE ID					
ANGLE SET	CHRONOLOGICAL SET						
A1		11	12	13	14	15	
A2		6	7	8			
	T1	15	17	20	24		

FIG. 5

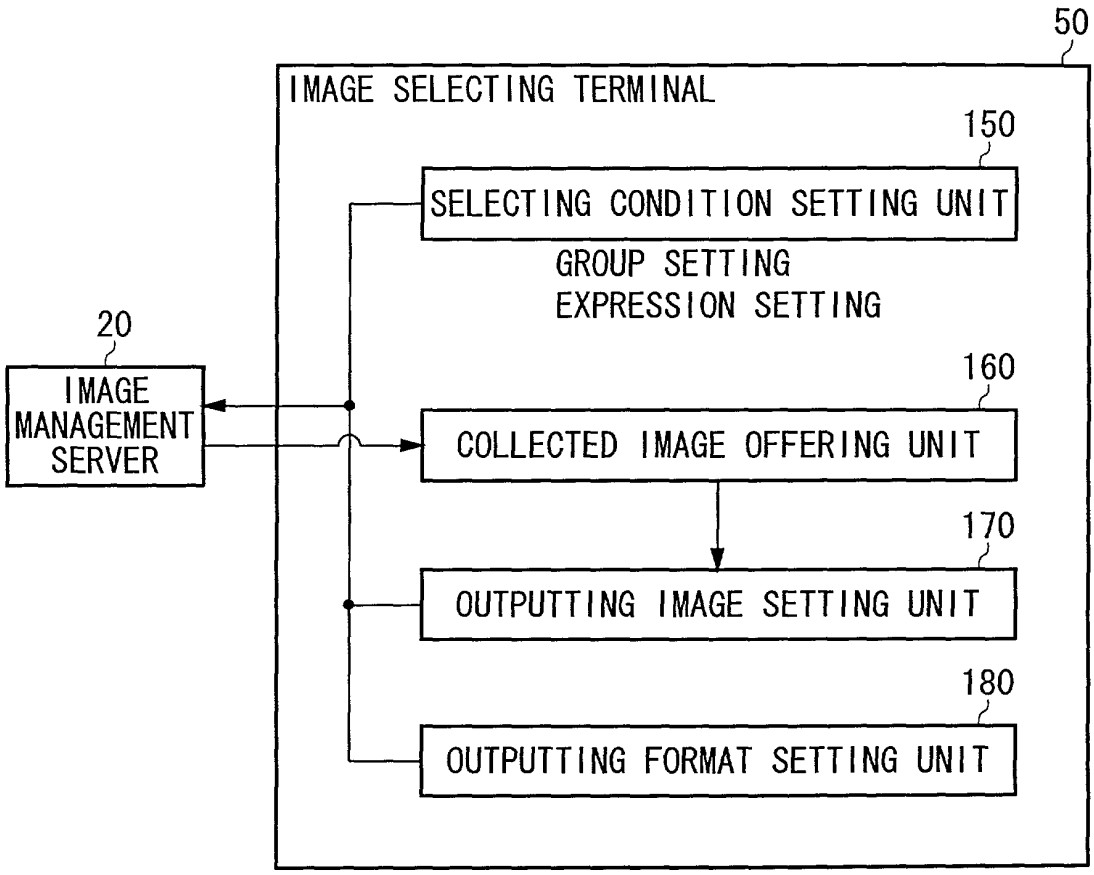

50
IMAGE SELECTING TERMINAL
150
SELECTING CONDITION SETTING UNIT
GROUP SETTING
EXPRESSION SETTING
20
IMAGE MANAGEMENT SERVER
160
COLLECTED IMAGE OFFERING UNIT
170
OUTPUTTING IMAGE SETTING UNIT
180
OUTPUTTING FORMAT SETTING UNIT

FIG. 6

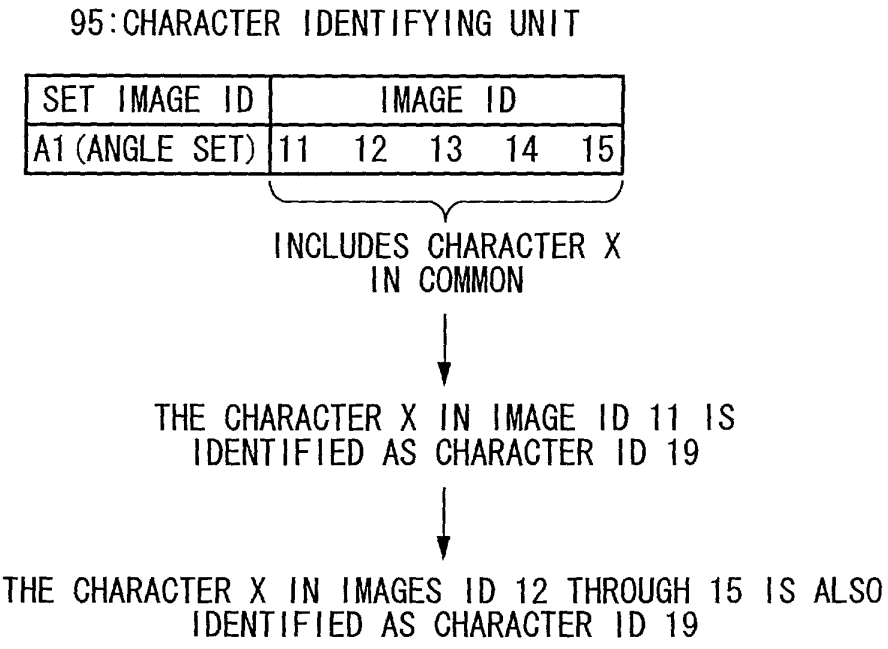


FIG. 7A

pp65248.030903

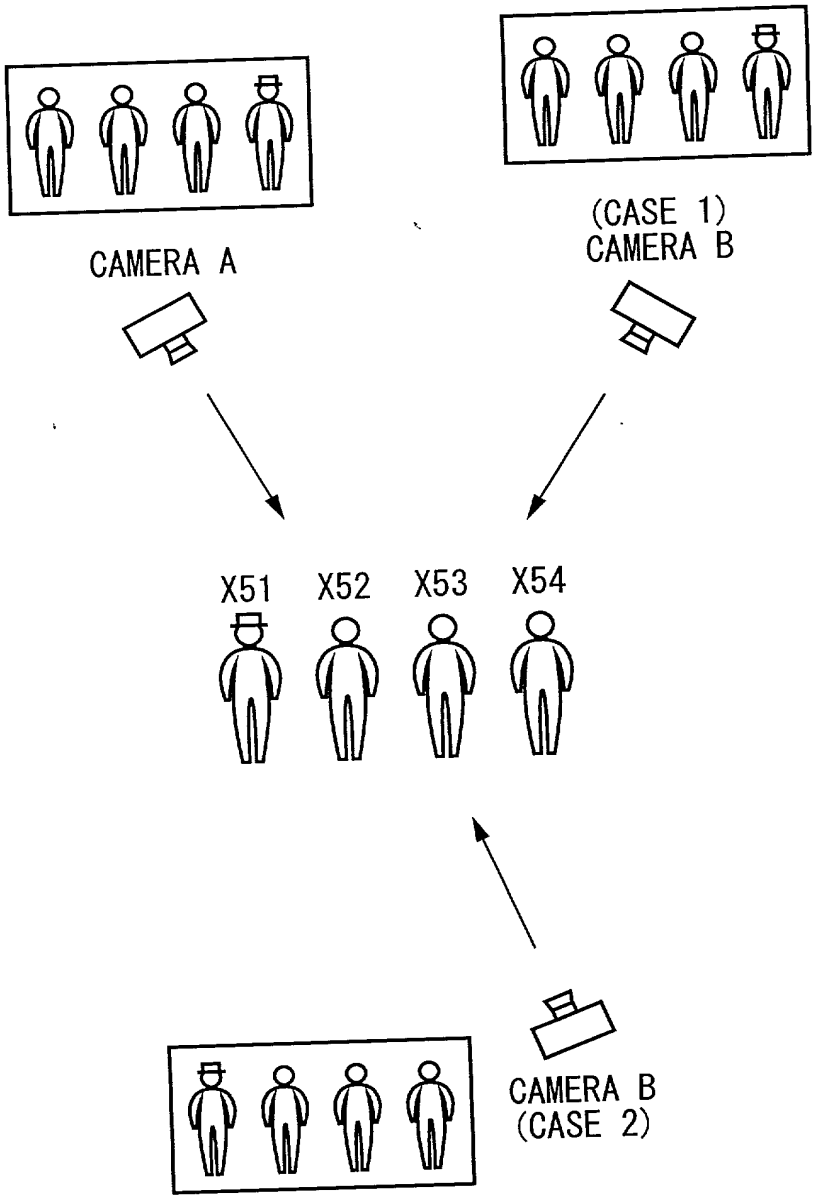


FIG. 7B

EDS-0170 US 08/26/03

95:CHARACTER IDENTIFYING UNIT

SET IMAGE ID	IMAGE ID
A2(ANGLE SET)	51 52

INCLUDE CHARACTER X51, X52, X53, AND X54 IN COMMON

↓

EACH OF THE PERSONS IN IMAGE ID 51 IS IDENTIFIED

↓

EACH OF THE PERSONS ARE VERIFIED (FIG. 7B)

↓

IDENTIFY EACH PERSON

FIG. 7C

PDOCID: <US_20020085097A1>

95:CHARACTER IDENTIFYING UNIT

SET IMAGE ID	IMAGE ID
T1(CHRONOLOGICAL SET)	21 22 23 24 25

INCLUDES CHARACTER Y IN COMMON

↓

THE CHARACTER Y IN IMAGE ID 21 IS IDENTIFIED AS CHARACTER ID 29

↓

THE CHARACTER Y IN IMAGES ID 22 THROUGH 25 IS ALSO IDENTIFIED AS CHARACTER ID 29

FIG. 8

Top Secret - Security

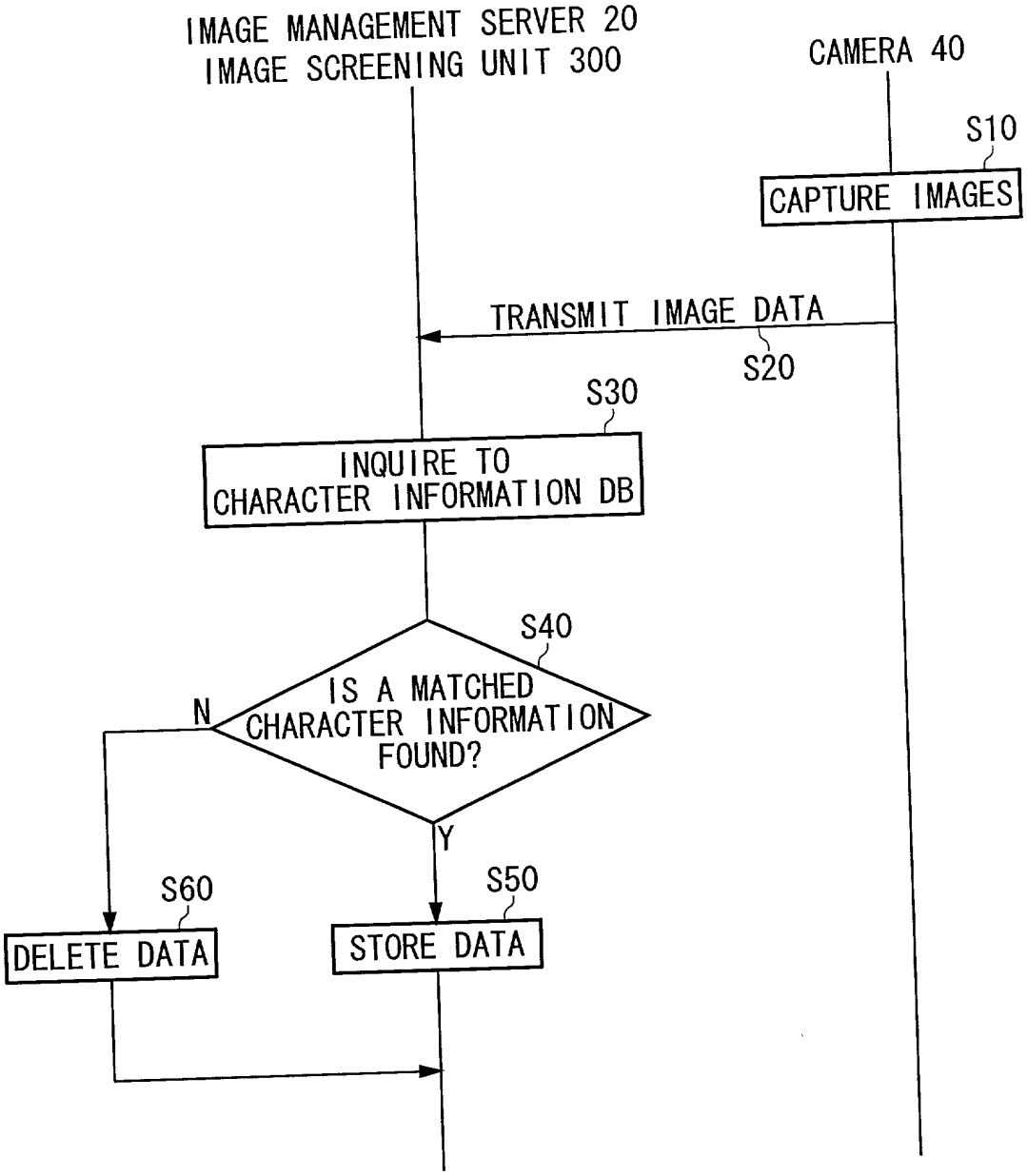
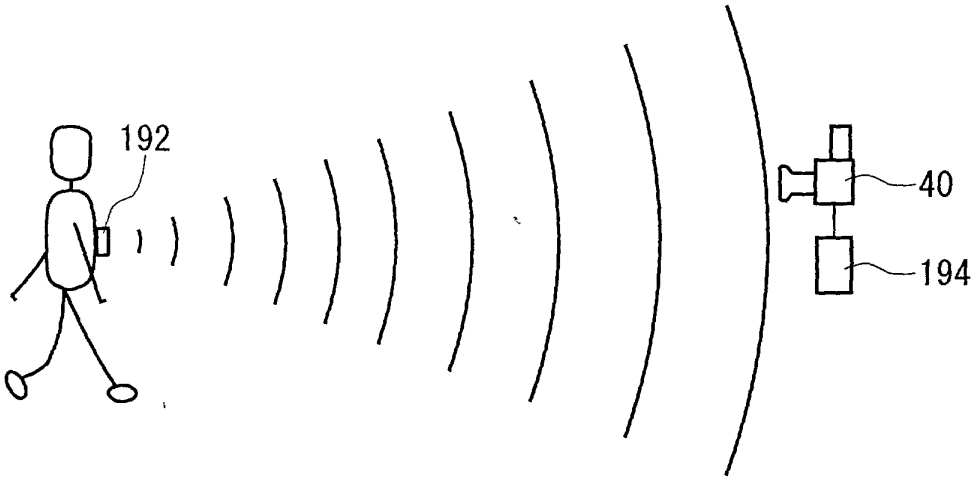


IMAGE MANAGEMENT SERVER 20
IMAGE SCREENING UNIT 300
CAMERA 40
S10
CAPTURE IMAGES
TRANSMIT IMAGE DATA
S20
S30
INQUIRE TO CHARACTER INFORMATION DB
S40
IS A MATCHED CHARACTER INFORMATION FOUND?
N
Y
S60
DELETE DATA
S50
STORE DATA

FIG. 9



DETECT POSITION OF A CHARACTER

↓

THE CHARACTER COMES TO A PREDETERMINED POSITION

↓

CAPTURE IMAGE

FIG. 10

USPTO - 20030063

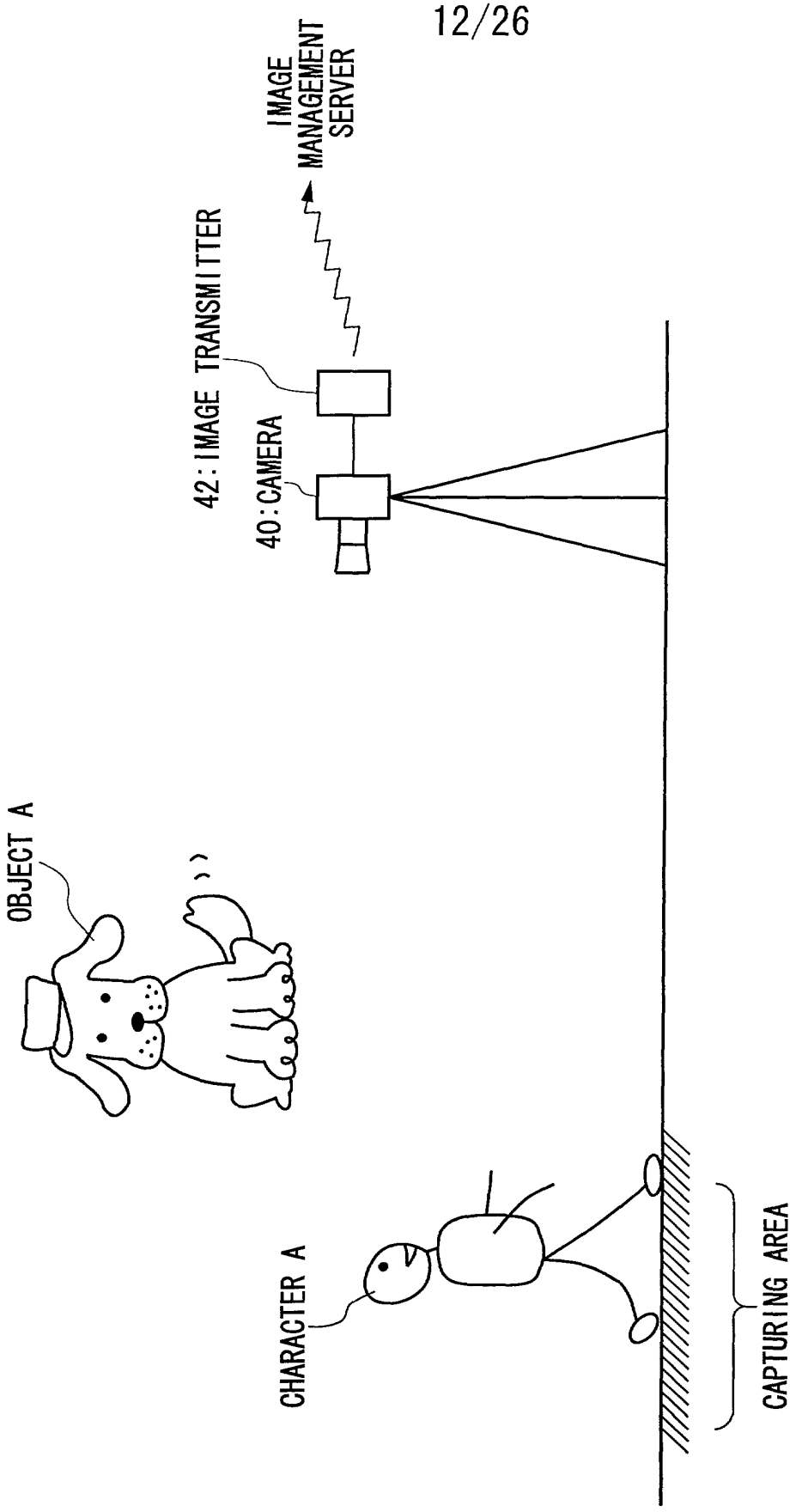


IMAGE MANAGEMENT SERVER
42: IMAGE TRANSMITTER
40: CAMERA
OBJECT A
CHARACTER A
CAPTURING AREA

FIG. 11

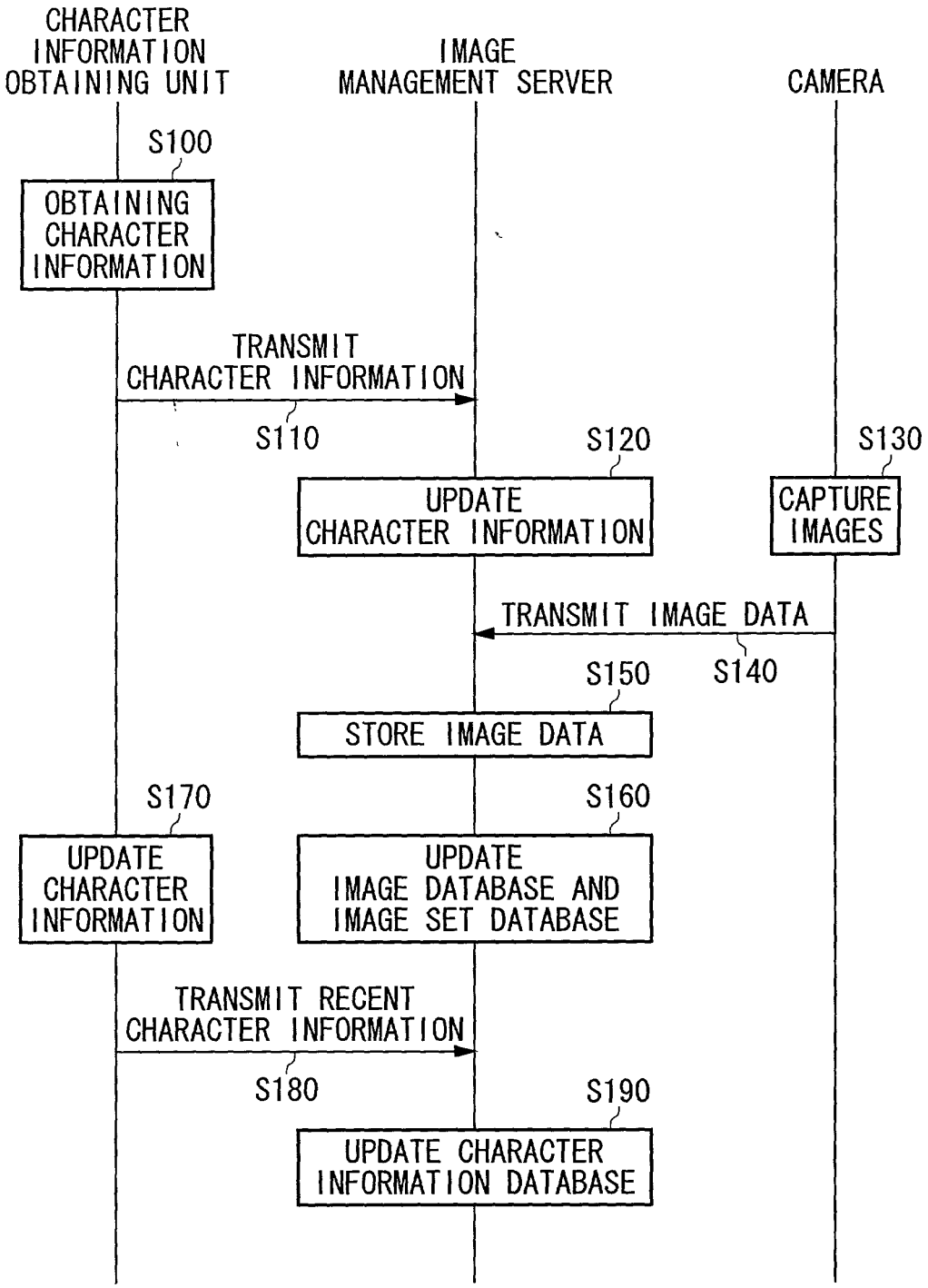

CHARACTER INFORMATION OBTAINING UNIT
IMAGE MANAGEMENT SERVER
CAMERA
S100
OBTAINING CHARACTER INFORMATION
TRANSMIT CHARACTER INFORMATION
S110
S120
UPDATE CHARACTER INFORMATION
S130
CAPTURE IMAGES
TRANSMIT IMAGE DATA
S140
S150
STORE IMAGE DATA
S170
UPDATE CHARACTER INFORMATION
S160
UPDATE IMAGE DATABASE AND IMAGE SET DATABASE
TRANSMIT RECENT CHARACTER INFORMATION
S180
S190
UPDATE CHARACTER INFORMATION DATABASE

FIG. 12

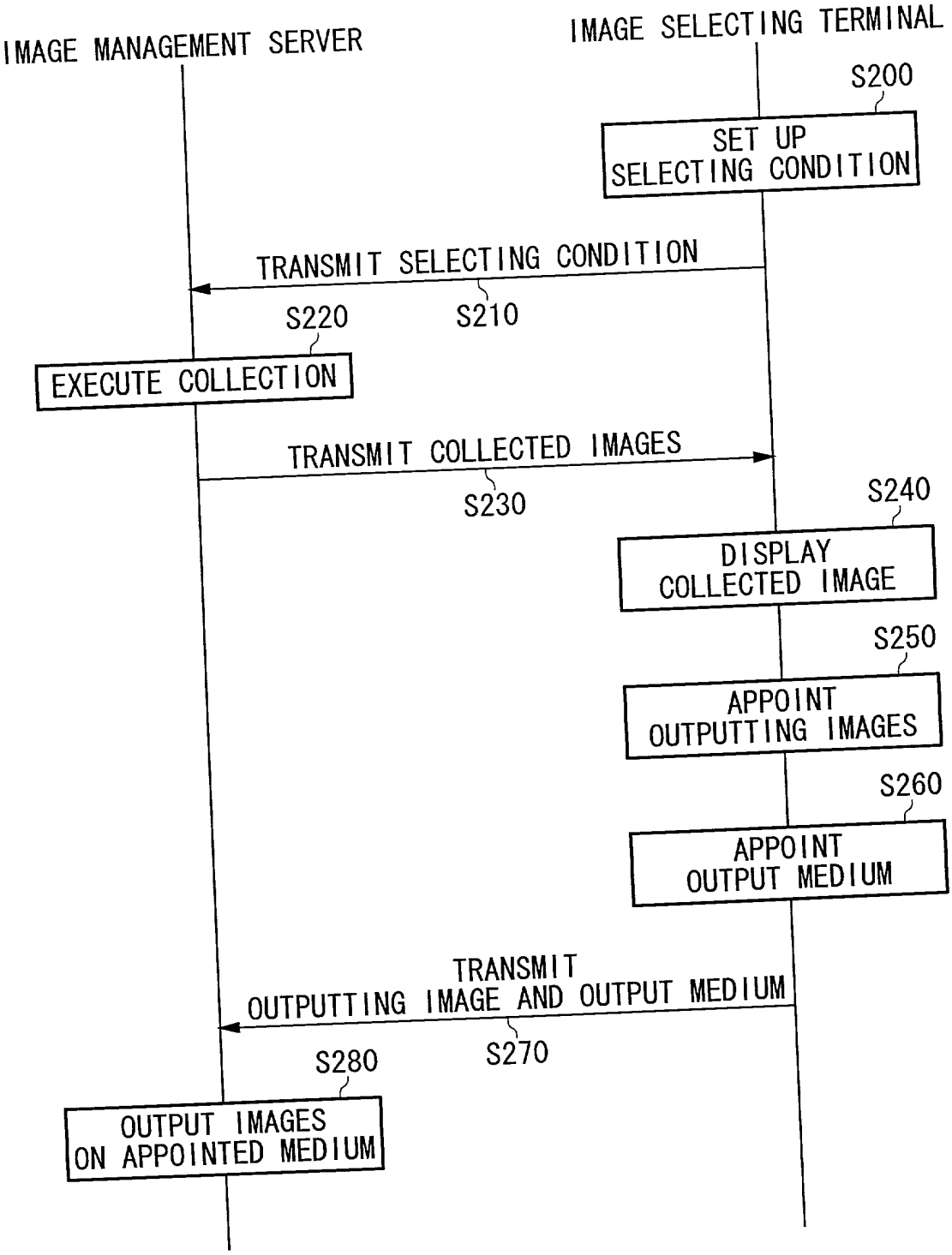


IMAGE MANAGEMENT SERVER
IMAGE SELECTING TERMINAL
S200
SET UP SELECTING CONDITION
TRANSMIT SELECTING CONDITION
S210
S220
EXECUTE COLLECTION
TRANSMIT COLLECTED IMAGES
S230
S240
DISPLAY COLLECTED IMAGE
S250
APPOINT OUTPUTTING IMAGES
S260
APPOINT OUTPUT MEDIUM
TRANSMIT OUTPUTTING IMAGE AND OUTPUT MEDIUM
S270
S280
OUTPUT IMAGES ON APPOINTED MEDIUM

FIG. 13

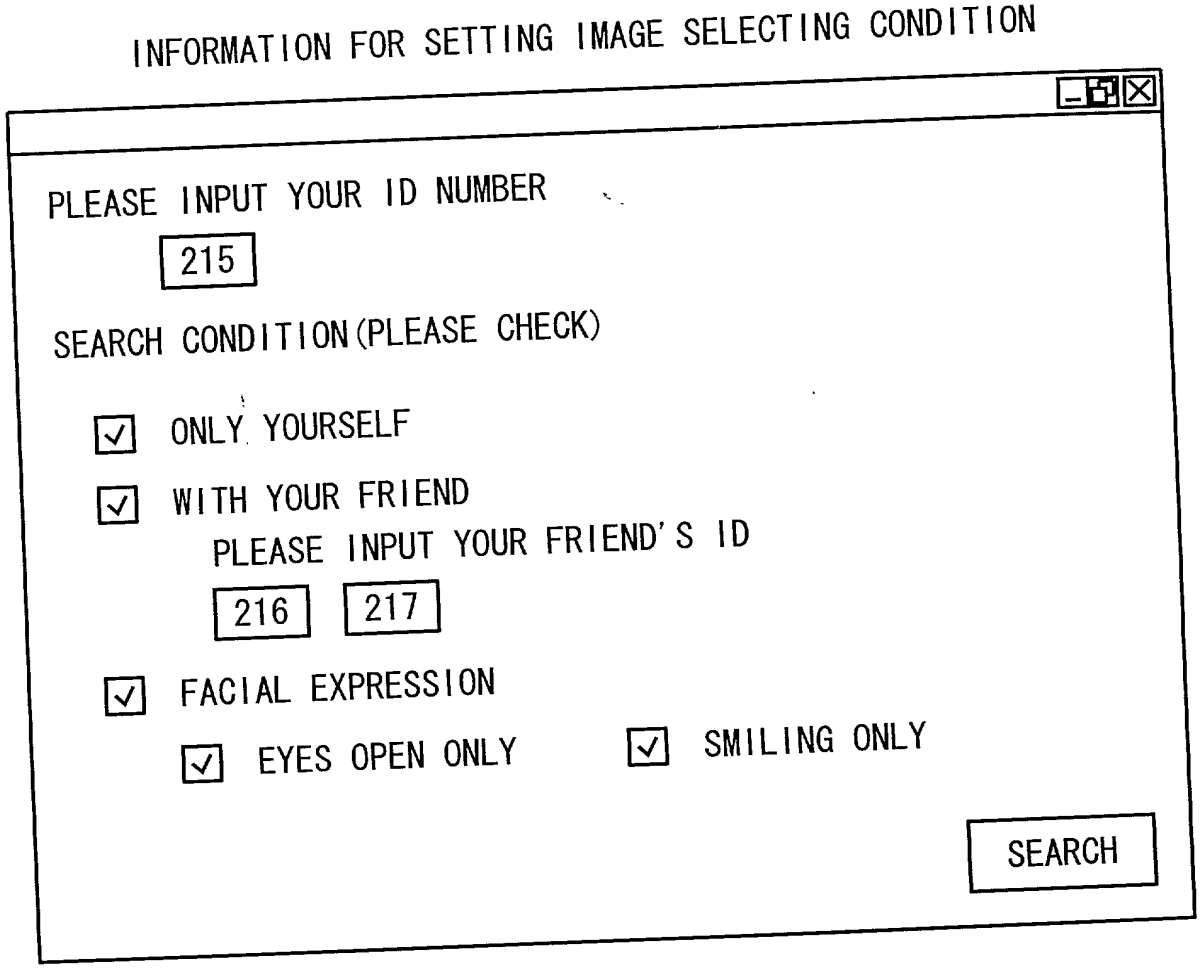

INFORMATION FOR SETTING IMAGE SELECTING CONDITION
PLEASE INPUT YOUR ID NUMBER
215
SEARCH CONDITION(PLEASE CHECK)
ONLY YOURSELF
WITH YOUR FRIEND
PLEASE INPUT YOUR FRIEND'S ID
216
217
FACIAL EXPRESSION
EYES OPEN ONLY
SMILING ONLY
SEARCH

FIG. 14

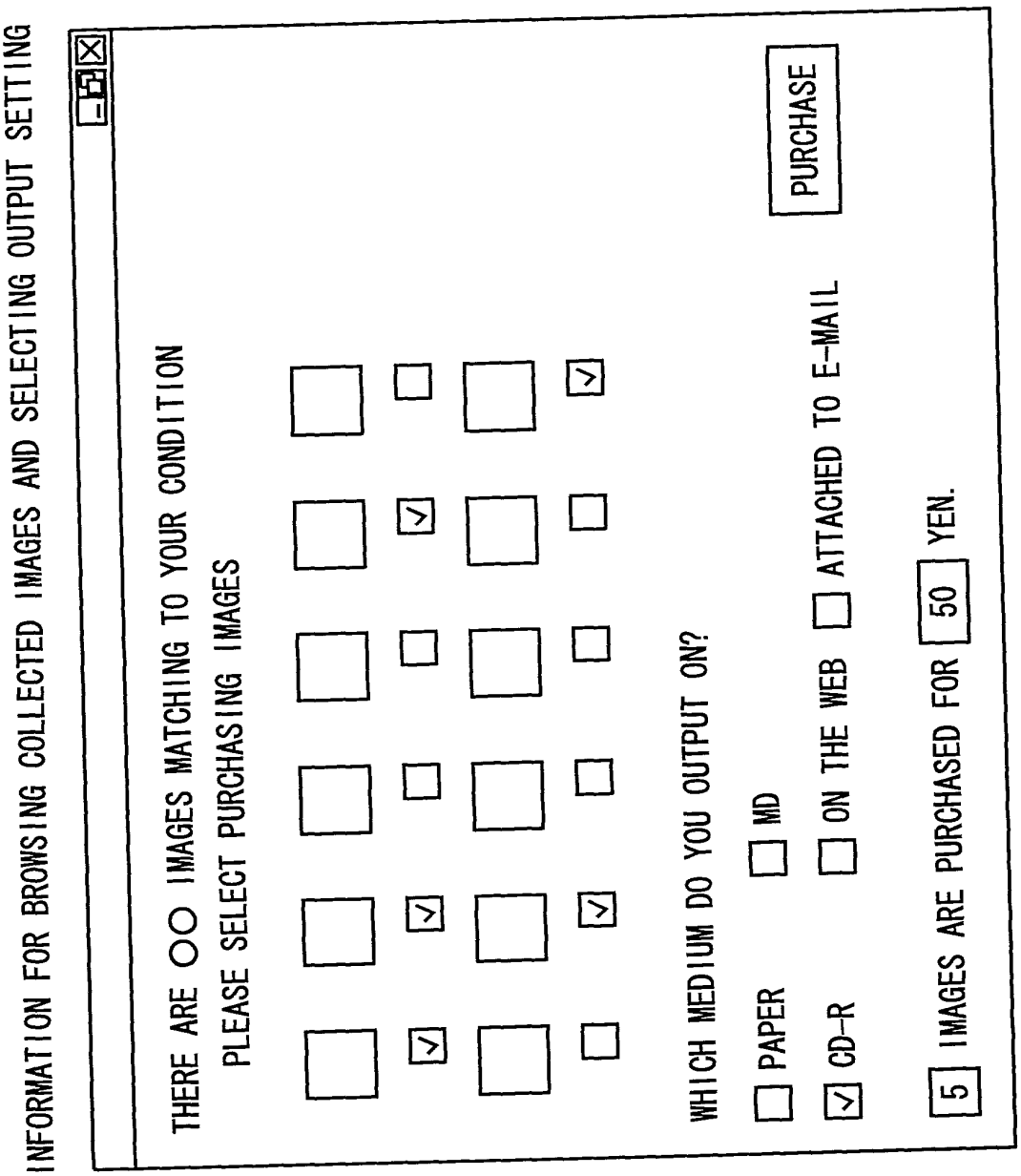

INFORMATION FOR BROWSING COLLECTED IMAGES AND SELECTING OUTPUT SETTING
THERE ARE OO IMAGES MATCHING TO YOUR CONDITION
PLEASE SELECT PURCHASING IMAGES
WHICH MEDIUM DO YOU OUTPUT ON?
PAPER
MD
CD-R
ON THE WEB
ATTACHED TO E-MAIL
PURCHASE
5
IMAGES ARE PURCHASED FOR
50
YEN.

FIG. 15

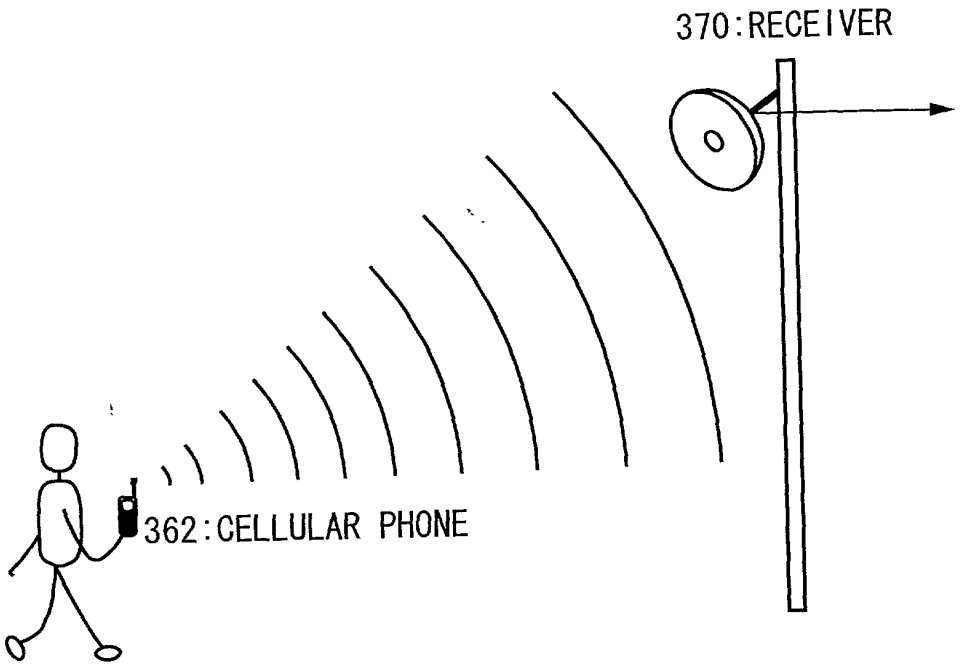


FIG. 16

EXPRESS MAIL NO. EL 929 369 968 US

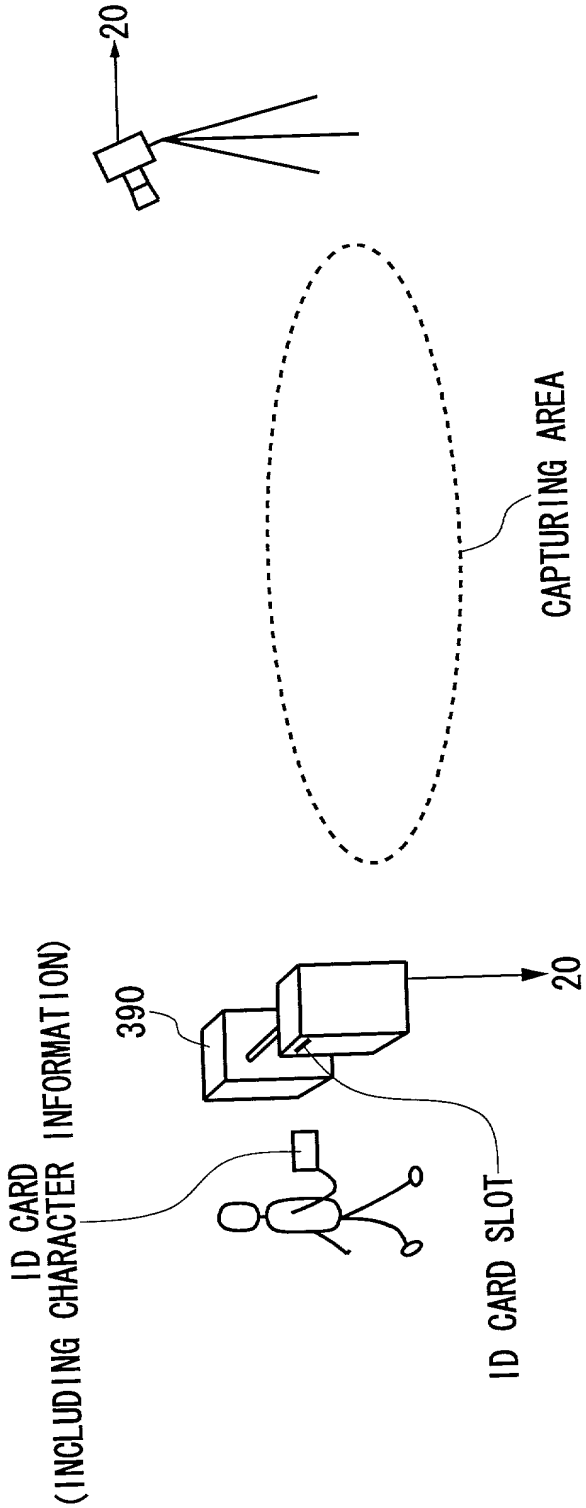


FIG. 17

PDOCID: <US>2002009230A1</US>

POSITION INFORMATION DB

230

CHARACTER ID	1

TIME	PLACE
13:00	POINT A
13:10	POINT A
13:20	POINT B
13:30	POINT B
⋮	

FIG. 18

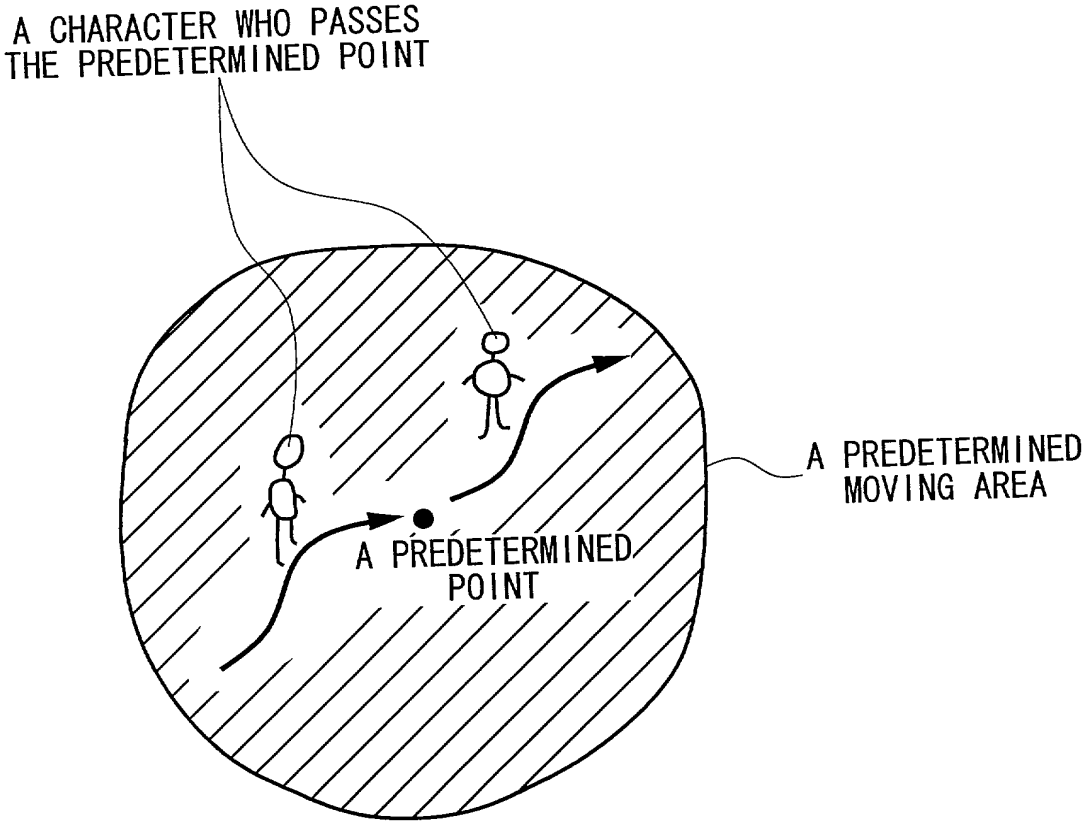


FIG. 19

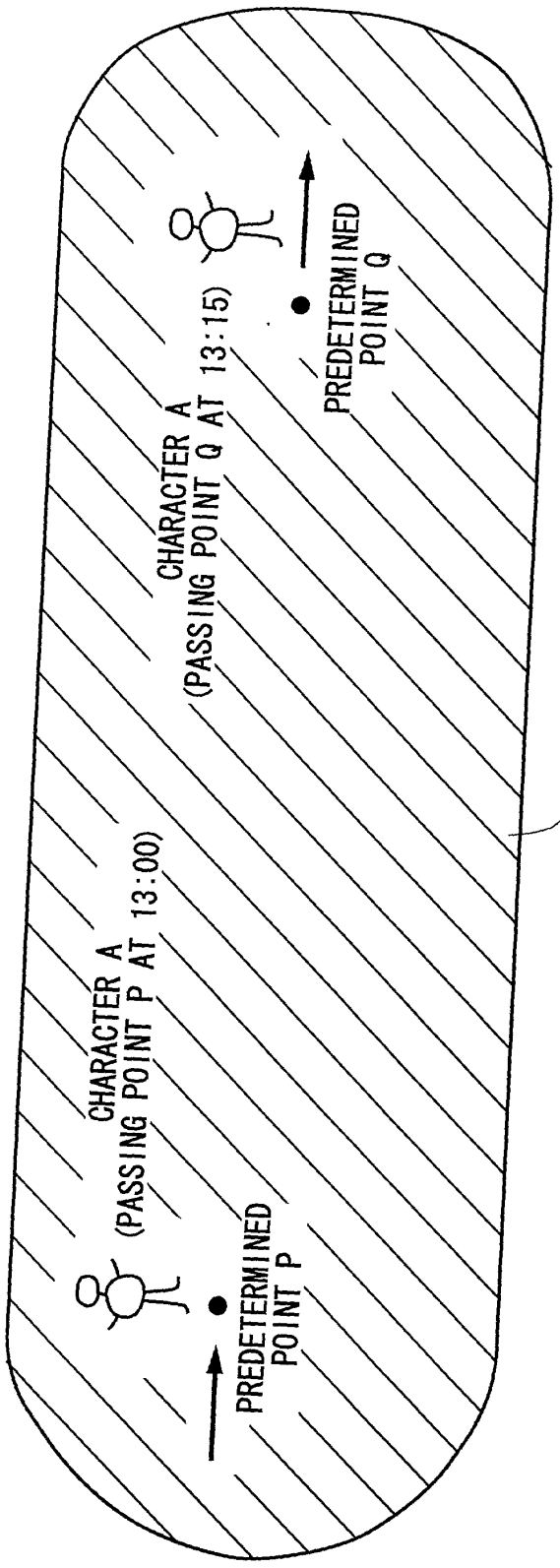

CHARACTER A
(PASSING POINT P AT 13:00)
PREDETERMINED POINT P
CHARACTER A
(PASSING POINT Q AT 13:15)
PREDETERMINED POINT Q
PREDETERMINED MOVING AREA

FIG. 20

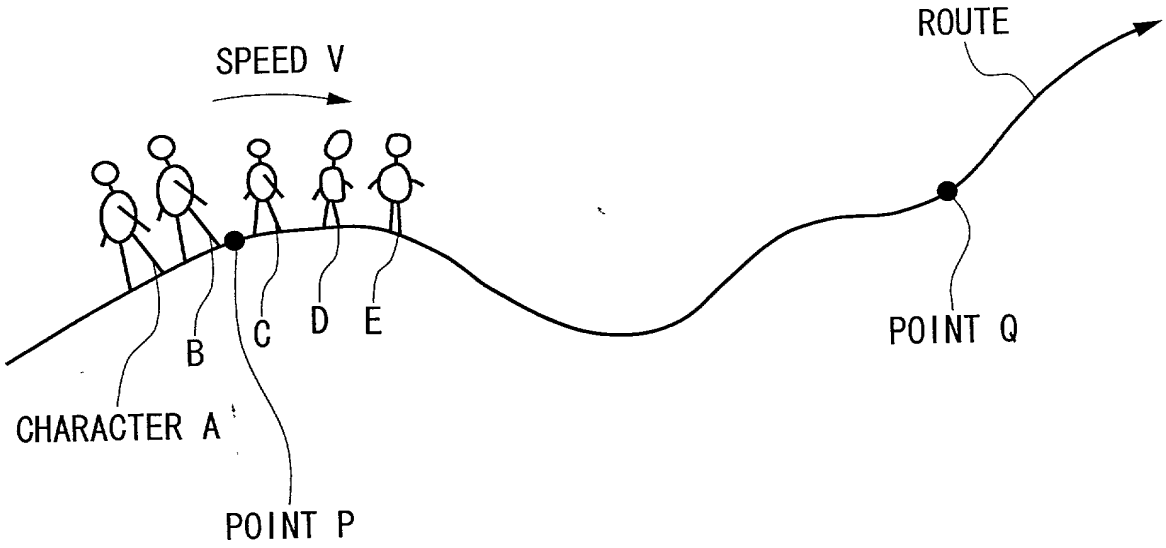


FIG. 21

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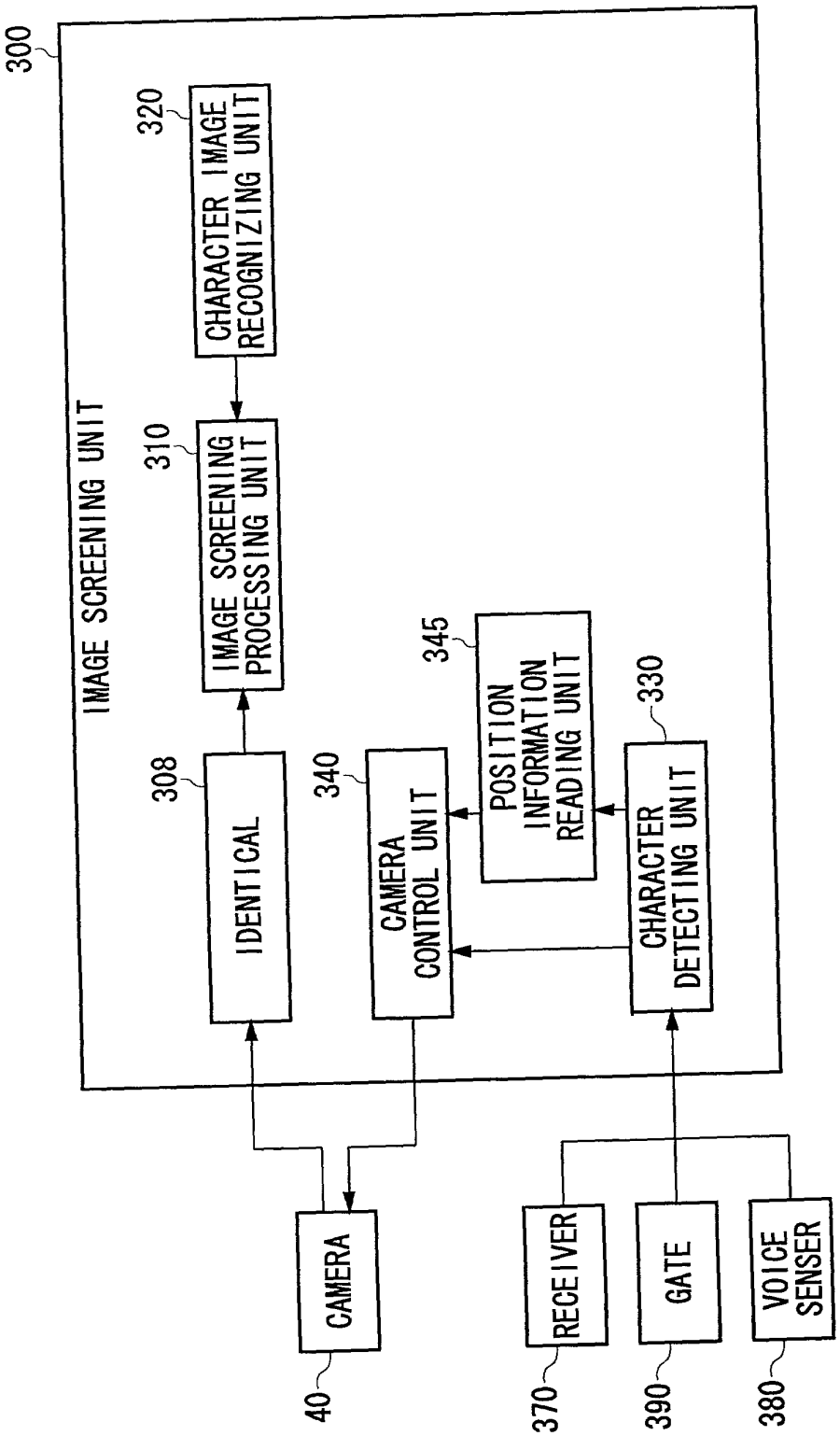
300
IMAGE SCREENING UNIT
320
CHARACTER IMAGE RECOGNIZING UNIT
310
IMAGE SCREENING PROCESSING UNIT
308
IDENTICAL
340
CAMERA CONTROL UNIT
345
POSITION INFORMATION READING UNIT
330
CHARACTER DETECTING UNIT
CAMERA
40
RECEIVER
370
GATE
390
VOICE SENSER
380

FIG. 22

320:CHARACTER IMAGE RECOGNIZING UNIT

IMAGE DETECTING CONDITION

- CONDITION FOR DELETING IMAGE
  - EYES ARE CLOSED
  - FACIAL EXPRESSION IS ANGRY

○ DETECT × DELETE	○	×	○	×
	IMAGE1	IMAGE2	IMAGE3	IMAGE4

FIG. 23

Patent Application Serial No. 09/896,074

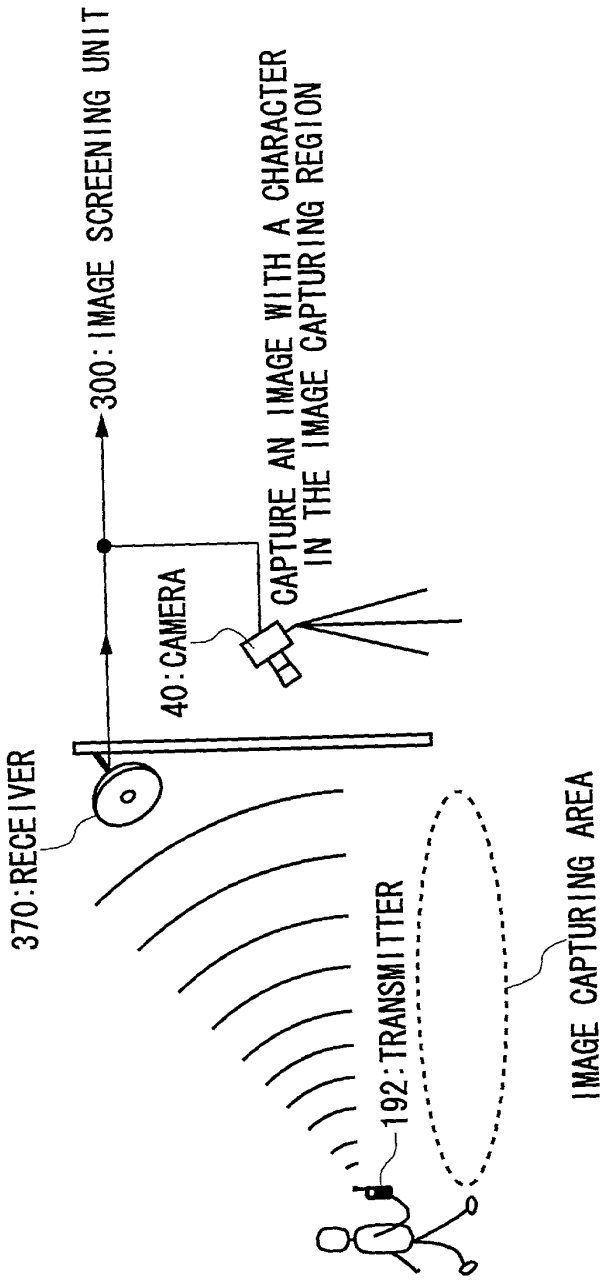
300:IMAGE SCREENING UNIT
CAPTURE AN IMAGE WITH A CHARACTER IN THE IMAGE CAPTURING REGION
40:CAMERA
370:RECEIVER
192:TRANSMITTER
IMAGE CAPTURING AREA

FIG. 24

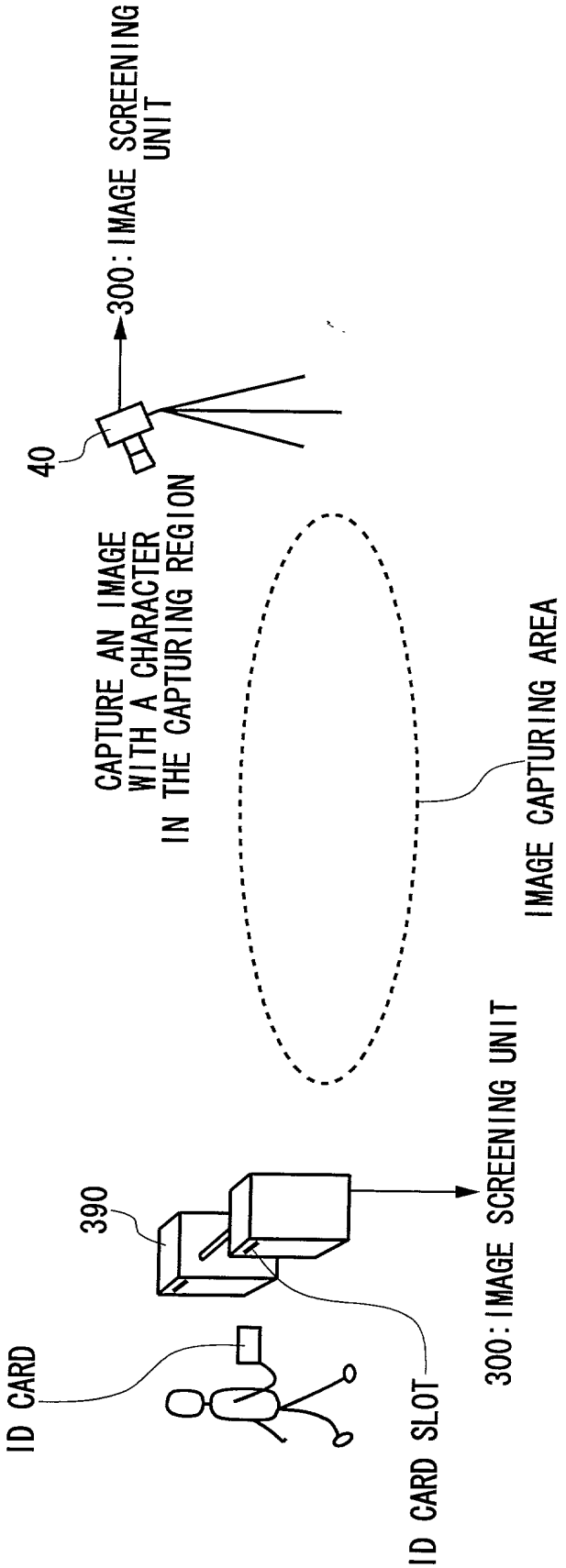
300: IMAGE SCREENING UNIT
40
CAPTURE AN IMAGE WITH A CHARACTER IN THE CAPTURING REGION
IMAGE CAPTURING AREA
390
300: IMAGE SCREENING UNIT
ID CARD
ID CARD SLOT

FIG. 25

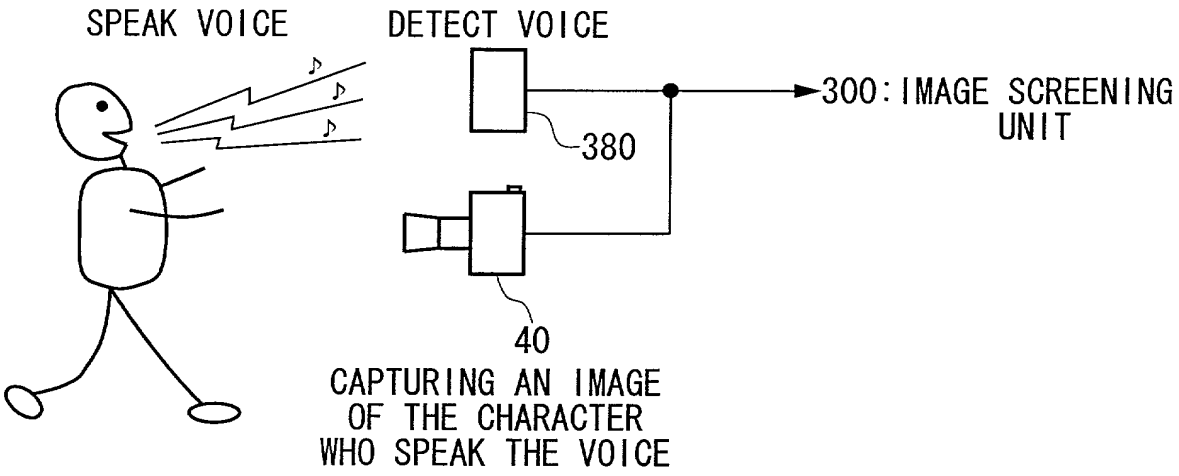

FIG. 26

Doc Code: IDS